

MEMORANDUM FOR: Deputy Director for Science and Technology

SUBJECT:

Defensive Systems Readout, Mission C535C

1. ASD/OEL has investigated defensive systems activity as indicated by BIRDWATCHER on Mission 535C. ASD/OEL concurs with OSA in the opinion that the systems function is compatible with systems experience on other missions in that environment. The BIRDWATCHER system is not designed to readout processed or evaluated information. The readout contains information which can be 25X1 only properly understood in conjunction with the The BIRDWATCHER output contains artifacts, of which the pilot is completely unaware and which are eliminated in the processing and analysis of the take. 2. 25X1 25X1 HANDLE VIA BYEMAN CONTROL SYSTEM ONLY

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4. Comparison of systems activity for Mission C535C with other operational missions conducted in vehicles configured with the configuration carried on Mission C535C does not show significant differences from expected performance in a mixed

and unspecified environment. The fact that the pilot reported no visual indication of systems activity will confirm the transient or sporadic operation of the systems when the mixed environment could activate the systems. The pilot will be primarily interested in the drift sight information for navigational procedures. A specific time delay in the pilot's reaction to alter his attention from the drift sight to a scan of the instrument panel upon audio alert from BIRDWATCHER can be from 3 to 5 seconds. The activity which triggered BIRDWATCHER initially could disappear in that time frame. BIRDWATCHER, however, will complete its transmission cycle of three bursts automatically.

5. A thorough evaluation of RFI problems which affects systems operation has not been made to date, due in part to Lockheed's recommendation that it was not required. However, this problem is now under review by OSA/OEL to establish a continuing RFI reduction program. BIRDWATCHER activity as a result of System 13A activation in sporadic bursts due to complex mixed environments will be relieved. Relief will be accomplished by modification of equipment so that System 13A cannot activate BIRDWATCHER more often than every 30 seconds. Also under consideration is a modification to require a continuous period whose duration is yet unspecified of System 13A response before triggering BIRDWATCHER.



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